

# Work Order ID 59448

Friday, June 04, 2010 11:24:57 AM



Page 1

Item ID: D5957

Accept



Setup Start



Revision ID:

Item Name: Saddle, 205

Stop



Start Date: 6/4/2010 Start Qty: 6.00



Cust Item ID:

Required Date: 6/10/2010 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

*[Signature]*

Date: 10/6/04

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D5957

Rev B

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

*[Signature]* 10/06/26

HAAS CNC vertical machine #1

1-Machine as per folio D5957, Ensure Batch Number is entered  
2-Machine Keyway 3-Deburr & Tumble

6 0

110

0.00



QC1- Inspect dimensions to dimension sheet

QC

Memo

0.00

*[Signature]* 10/06/26

Quality Control

6 0

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

*[Signature]* 10/06/28

Quality Control

6 0

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 59448**

Friday, June 04, 2010 11:24:57 AM

Page 3

Item ID: D5957

Accept

Revision ID:

Item Name: Saddle, 205

Start Date: 6/4/2010 Start Qty: 6.00

Required Date: 6/10/2010 Req'd Qty: 6.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

Identify as per dwg & Stock Location: 430

0.00



Packaging

Memo

0.00

Packaging

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*C/10/6/29* *(S)*

*10/06/29*

*MF*

*10-6-29*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Friday, June 04, 2010 11:25:02 AM

Page 1

Work Order ID: 59448

Parent Item: D5957

Parent Item Name: Saddle, 205


Comments: IPP Rev:E Re-Format 05-11-29 JLM  
IPP Rev:F ecn826 06.12.06 ec

Start Date: 6/4/2010

Required Date: 6/10/2010

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-007		Manufactured	No			110	Each	52.0000	1	6			
													
Saddle Billet													

Location

Loc Qty

Loc Code

MAT42

52

46412

2

58677

50

6 DTT 10/06/23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	59448
<b>Description: Inner Aft Saddle</b>		<b>Part Number:</b>	D5957
<b>Inspection Dwg: D5957</b>	<b>Rev: B</b>	<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				#By	#Date
				1	2	3	4		
A	0.438	0.443		0.441	0.441	0.441	0.441	441	0.441
B	1.745	1.755		1.750	1.750	1.750	1.750	1.750	1.750
C	5.245	5.255		5.250	5.250	5.250	5.250	5.250	5.250
D	6.995	7.005		7.000	7.000	7.000	7.000	7.000	7.000
E	5.240	5.260		5.250	5.250	5.250	5.250	5.250	5.250
F	4.745	4.755		4.750	4.750	4.750	4.750	4.750	4.750
G	0.315	0.322		0.321	0.321	0.321	0.321	0.321	0.321
H	1.522	1.532		1.527	1.527	1.527	1.527	1.527	1.527
I	3.048	3.058		3.053	3.053	3.053	3.053	3.053	3.053
J	4.575	4.585		4.580	4.580	4.580	4.580	4.580	4.580
K	0.315	0.322		0.321	0.321	0.321	0.321	0.321	0.321
L	0.495	0.505		0.500	0.500	0.500	0.500	0.500	0.500
M	0.490	0.510		0.501	0.501	0.501	0.503	0.502	0.502
N	1.865	1.885		1.879	1.879	1.879	1.879	1.879	1.879
O	7.990	8.010		8.002	8.002	8.002	8.002	8.002	8.002
P	2.240	2.260		R2.25	R2.25	R2.25	R2.25	2.25	R2.25
Q	0.308	0.313		0.310	0.310	0.310	0.311	0.311	0.311
R	0.760	0.765		0.764	0.764	0.764	0.764	0.764	0.764
S	0.490	0.510		0.491	0.495	0.490	0.494	0.493	0.505
T	1.625	1.645		1.635	1.629	1.630	1.637	1.630	1.630
U	2.000	2.020		2.008	2.006	2.007	2.008	2.007	2.007
V	0.023	0.043		0.033	0.033	0.033	0.033	0.033	0.033
W									
X									
Y									
Z									
AA									
AB									
AC									
AD									
AE									
AF									
Accept/Reject									

Measured by: <i>[Signature]</i>	Audited by: <i>[Signature]</i>
Date: 10/06/20	Date: 12/06/28

Rev	Date	Change	Revised by	Approved
A	99.04.19	New Issue	RF	
B	02.12.13	Reformat; Added Dim. T-U & DT8682, DT8686 & DT8696 A/B	KJ/RF	
C	06.11.20	Added dimension V	KJ/JLM	
D	06.12.06	Dimensions L,N,P revised	KJ/EC	
E	07.06.15	Dimension G revised	KJ/JLM	
F	08.04.21	Dimension E revised	KJ/DD	
G	08.09.05	Dimension K revised	KJ/DD	
H	09.07.29	Dimension Q revised	KJ	<i>[Signature]</i>

Dart Aerospace Ltd

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO A

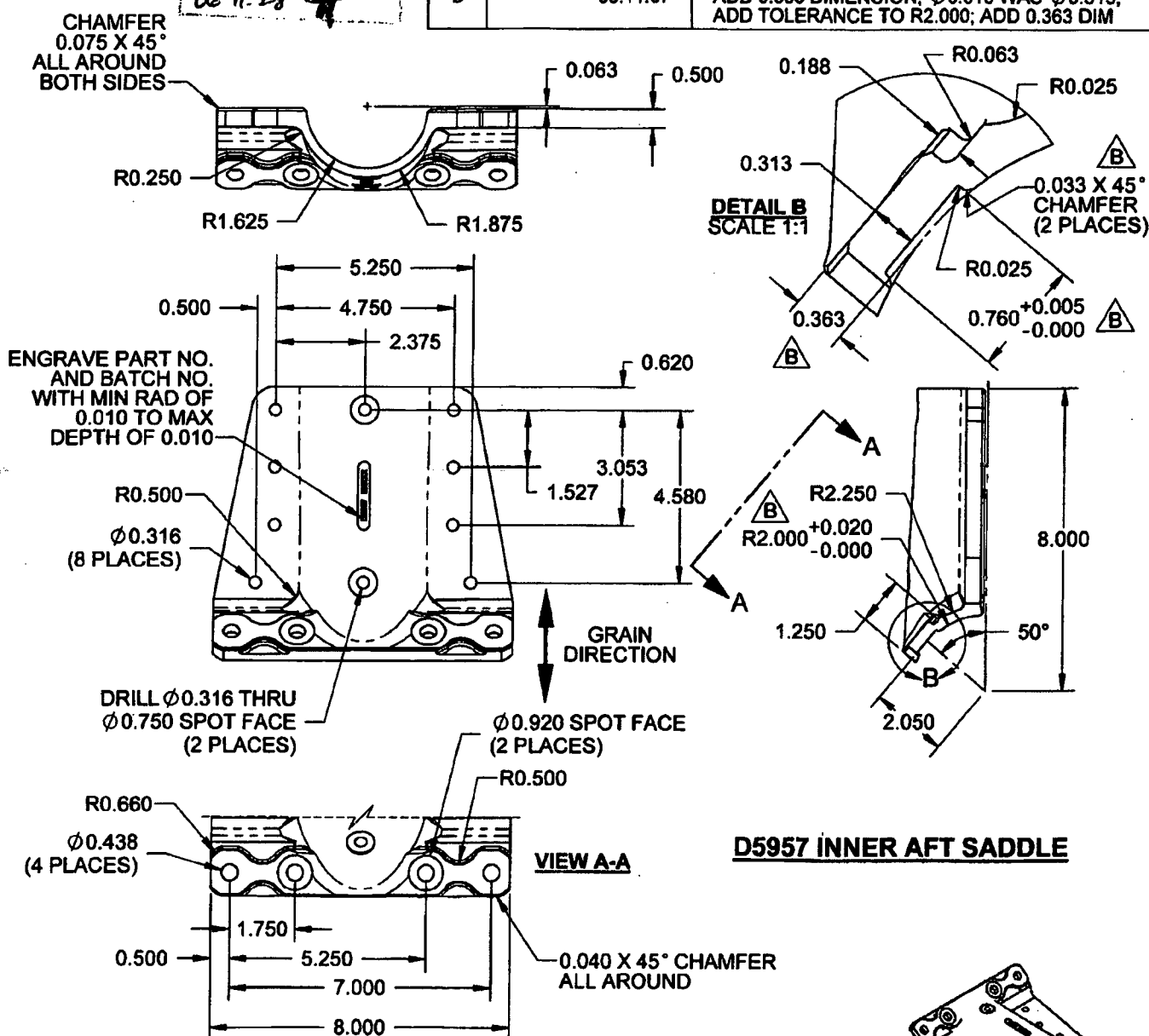
WITHOUT  
WORK C

IO. 59445

**DART**

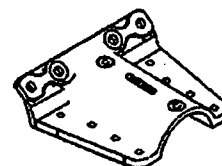
3-10-6-04

DESIGN <b>BW</b>	DRAWN BY <b>CB</b>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <b>LE</b>	APPROVED <b>[Signature]</b>	DRAWING NO. <b>D5957</b>	REV. B SHEET 1 OF 1
DATE <b>06.11.07</b>	TITLE <b>INNER AFT SADDLE</b>		
REV <b>A</b>	DATE <b>97.05.06</b>	DESCRIPTION <b>NEW ISSUE</b>	
<b>B</b>	<b>06.11.07</b>	INCORPORATE DEO 9102, DEO 9079; ADD 0.363 DIMENSION; Ø0.316 WAS Ø0.313; ADD TOLERANCE TO R2.000; ADD 0.363 DIM	



**NOTES:**

- 1) MATERIAL: ALUMINUM 7075-T7351 PER QQ-A-250/12 (MAKE FROM D6101-007 SADDLE BILLET, 7075)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.010 TO 0.020



**ISOMETRIC VIEW**  
SCALE 1:8

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Dart Aerospace Ltd

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 58677**

May 14, 2010 8:16:14 AM

Page 1

Item ID: D6101-007

Accept

Setup Start

Revision ID:

Stop

Item Name: Saddle Billet

Start Date: 5/14/10 Start Qty: 50.00

Cust Item ID:

Required Date: 5/31/10 Req'd Qty: 50.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D6101	Rev B								

100 0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 11900

- a) Description: Aluminum billet
- b) 7.750" x 8.250" x 2.50" thick
- c) Tolerance on all dimensions are +0.030"/-0.000"
- d) Grain direction along 7.750" length
- e) Material: 7075-T7351 (QQ-A-250/12)
- f) Material certification required

110 0.00



Packaging

Receive &amp; Inspect for Damage &amp; Mat'l Certs

Memo

0.00

Packaging

Ensure material certification is attached

CL 1015/14 (50)

P/14/27 (50)

**Work Order ID 58677**

May 14, 2010 8:16:14 AM

Page 2

Item ID: D6101-007

Accept

Setup Start

Revision ID:

Stop

Item Name: Saddle Billet

Start Date: 5/14/10 Start Qty: 50.00

Cust Item ID:

Required Date: 5/31/10 Req'd Qty: 50.00

Customer:




Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC6- Inspect dimensions to drawing  Memo Ensure Material certification comply to Dwg D6101	0.00  0.00	<i>mf 10/06/01</i>			<u>50</u>	<u>0</u>		
130  Packaging Packaging	Identify as per dwg & Stock Location: <i>MAT</i>  Memo	0.00  0.00	<i>mf 10/06/01</i>			<u>50</u>			
140  QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							<i>10/06/02</i> <i>MF</i> <i>10-6-2</i>

# Picklist Print

May 14, 2010 8:16:14 AM

Page 1

Work Order ID: 58677

Parent Item: D6101-007

Parent Item Name: Saddle Billet



Comments: IPP A: ☐01.05.04 ☐New Issue ☐EC

Start Date: 5/14/10

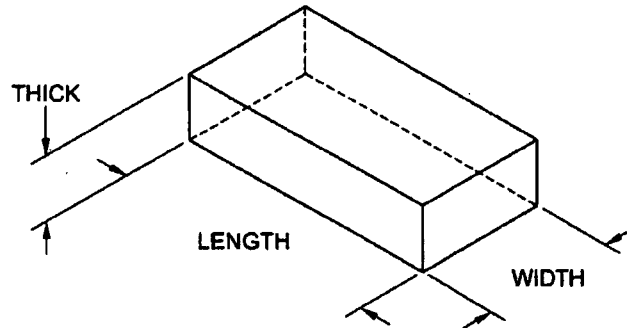
Required Date: 5/31/10

Start Qty: 50.00

Required Qty: 50.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Qty Issued	Date Issued	Status
D6101-007P  7075-T7351 8.25X7.75X2.5		Purchased	No			110	Each	0.0000	1		<i>Picklist</i>	<i>50</i>

# SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

**B** ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

**RELEASED**  
09/07/15/W

CL 10/5/14

W/O: 58677

*[Handwritten signature]*  
10/6/01

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	





Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO11900

Purchase Order Date 5/14/10

PO Print Date 5/14/10

Page Number 1 of 1

Order From :

VC-MET001

METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name

Vendor Phone

514 694 9575

Vendor Fax

514 695 3281

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**  
210/517

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D6101-007P	7075-T7351 8.25X7.75X2.5	5/31/10 Yes	50.00 Each	TST ground	\$83.2000	\$4,160.00

Special Inst: AS PER DWG D6101 REV. B  
B58677  
MATERIAL: 7075-T7351 AS PER QQ-A-  
250/12  
SIZE: 7.750" X 8.250" X 2.50" THICK  
TOLERANCE ON ALL DIMENSION ARE  
+0.030"/-0.000"  
GRAIN DIRECTION ALONG 7.750"  
LENGTH

PO Total:

\$4,160.00

MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY

No substitution or deviation without  
consent.

Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 5/14/10

**Castle Metals®**

A. M. Castle &amp; Co.

**PACKING SLIP**

Page 1 of 1

Shipment No:354172

<b>Ship From:</b> Castle Metals MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 27-MAY-10	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid		<b>Carrier</b> MANITOULIN		<b>BOL No</b> 354172-2	

<b>Shipment Details</b>	<b>Final Destination Branch - MON</b>
-------------------------	---------------------------------------

<b>Order No</b> 758506	<b>Line No</b> 1	<b>Item No</b> 6879.MO	<b>Description</b> 2.5000.PL.7075.T7351.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 8.25 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 7.75")) X 7.75 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 7.75")) - ALUMINUM PLATE SAW				
<b>Purchase Order No</b> 11900		<b>Part Number</b> YOUR ITEM NUMBER: D6101-007		<b>Ordered Qty</b> 50 PCS		<b>Invoice Qty</b> 50 PCS	
<b>Details</b>							
<b>Delivery No.</b> 27942312	<b>Mill</b>	<b>Heat Number</b> 485532A6	<b>Mech Id</b>	<b>PCS</b> 50	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty (LBS)</b> 826.58

<small>These commodities/technologies are subject to US Export Administration &amp; US State Dept. Regulations and, if intended for export, will be exported thereunder. Diversion contrary to US Law is Prohibited.</small>							
<small>We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle &amp; Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.</small>							
<b>Reviewed by Authorized Castle Metals Representative:</b>				<b>Date:</b>			

*smk 10/06/01*

17121

## SHIP TO:

A M CASTLE & CO  
3400 NO. WOLF ROAD  
FRANKLIN PARK, IL 60131

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4173294

## SOLD TO:

AM CASTLE & CO- SOLD TO  
3400 NO. WOLF ROAD  
FRANKLIN PARK, IL 60131

CUSTOMER PO NUMBER: 01-23160		WORK PACKAGE:	CUSTOMER PART NUMBER: 6879 A97075-60		SHIP RUN/LOAD ID: 101640/19	GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1087294	LINE ITEM: 1	SHIP DATE: 5-OCT-2009	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: Sawed Plate	
WEIGHT SHIPPED: 7196 LB	QUANTITY: 4 PCS EST.	B/L NUMBER: 2024315		GAUGE: 2.5000 IN		DIAMETER/WIDTH: 48.500 IN	LENGTH: 144.500 IN

### Certified Specifications

AMS 4078/RevG  
ASTM B 209/Rev07  
BSS 7055/RevA  
DPS 4.713/RevAH  
GSS16100/RevG/Amd1

AMS-QQ-A-250/12  
ASTM B 594/Rev06  
CMMP 025/RevS  
EAC MS1011/RevE  
MMS 159/RevN

AMS-STD-2154  
BAC 5439/RevH  
CSTI 006/RevC  
GAMPS 9101/RevB  
PS 21211/RevK

Test Code: 4297

### Test Results

Lot: 485532A6 Cast 271

Drop 21

Ingot 1

(ASTM E8/B557)  
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	70.6 : 71.4 (487 : 492)	58.6 : 59.1 (404 : 407)	10.4 : 11.2

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	40.8 Min	41.3 Max
(MS/M) :	23.7 Min	24.0 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.11	0.21	1.5	0.04	2.5	0.19	5.5	0.04	0.01	0.01	TOT 0.05

*amb 10/6/01*

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4173294

Lot: 485715A7 Cast 271 Drop 21 Ingot 4

(ASTM E8/B557)  
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.4 : 72.4 (492 : 499)	59.2 : 60.9 (408 : 420)	11.2 : 11.4

(ASTM E1004)  
(EN 2004-1)

Conductivity %IACS :	40.9 Min	41.2 Max
(MS/M) :	23.7 Min	23.9 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	TOT	OTHER
Actual	0.11	0.21	1.5	0.04	2.6	0.19	5.5	0.04	0.01	0.01		0.05

### ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

### TEST NOTES

7075-T7351 plate 3.501-4.000" thick, if  
ultrasonically inspected, meets requirements of CMMP025 per  
SDR CMMP025-KaiserT-3. 7075-T7351 plate 4.001-5.000" thick,  
if ultrasonically inspected, meets requirements of CMMP025  
per  
SDR CMMP025-KaiserT-2.

Metal represented by this test report was immersion  
ultrasonically tested from one side and meets the Class A  
and Class B requirements of all specifications referenced  
on this test report.

### CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER DFARS 225.872-1(a), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF DFARS 262.225 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTIRE ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED.

BILL POYNOR, LABORATORIES SUPERVISOR



**Castle Metals FP**  
 HEAT NUMBER 485532A6  
 MECHANICAL ID \_\_\_\_\_  
 ITEM CODE 6879  
 LOT NUMBER \_\_\_\_\_  
 PO NUMBER 17121  
 RECEIPT DATE 10-12-09  
 SUPPLIER Kaiser  
 SPECIFICATION \_\_\_\_\_  
 LCS no  
 COMMENT \_\_\_\_\_  
 APPROVED BJ

*Imp*  
*10/16/01*